

REMARKS/ARGUMENTS

Applicants would like to thank Examiner Hertzog for the indication of allowable subject matter in the claims of the present application. It is believed that based upon the present amendments, the application will be in condition for allowance.

Claims 1-40 are active in the application. Claim 20 has been amended to address the 35 U.S.C. 112 rejection and correct a redundancy by deleting the phrase “in an amount”. This rejection is supported by the claim and specification as original filed. The specification has been amended to replace the terms “spheroidal” and “microspheroidal” with the terms “spherical” and “microspherical”, respectively. These terms were used interchangeably throughout the application to indicate the shape of the present particles. Accordingly, to clarify and remove any confusion, the specification has been amended to conform with the originally filed claims. The Abstract has also been amended to meet the suggested format. Figure 1 has been added. This figure is described in detail in the specification beginning at page 16, line 8, and is also supported by the disclosures in the two Campbell et al references incorporated by reference in the specification. No new matter has been added by these amendments.

The objection to the Abstract has been obviated by the present amendment and should be withdrawn.

The claims stand rejected under 35 U.S.C. 112, first and second paragraphs, and the specification is objected to, due to the use of the term “spheroidal” in the specification and the term “spherical” in the claims. This rejection/objection has been obviated by the above amendments. In particular, as explained in detail below, it is apparent from a complete reading of the specification and claims, as originally filed, that the terms “substantially spheroidal” and “substantially spherical” are used synonymously. The amendments to the specification are made to enhance clarity of Applicants’ specification and claims by addressing an inconsistency of form, not an inconsistency of substance. No admission, and

no change in the scope of the disclosure, or in the scope of the claims, is intended or made as a result of the amendments to the specification.

The Official Office Action states that “spheroidal” and “spherical” are not synonymous on the basis of definitions taken from Dictionary.com. Although it is true that “spherical” and “spheroidal” have different definitions in a strict geometric sense, the terms have essentially the same meaning in normal, generalized usage. Thus Webster’s New Collegiate Dictionary (1991) defines a spheroid as “...a figure resembling a sphere” and spherical as “... having the form of a sphere or of one of its segments ...” (see attached excerpt from Webster’s).

Although the Official Office Action states that the specification consistently uses the term “spheroidal” in describing the sorbent particles, Applicants note that both terms are used to describe the particles in the specification as originally filed (the term “substantially spherical particles” is found at page 8, line 6, of the original specification). Moreover, in Applicant’s specification and claims as originally filed, the terms “spherical” and “spheroidal” are used in the modified forms of “substantially spherical” and “substantially spheroidal”, clearly indicating that the terms are used in the general, non-specific sense. Accordingly, it is readily apparent that the terms “substantially spherical” and “substantially spheroidal” are used interchangeably in the present application as originally filed. Accordingly, the present rejection and objection to the specification should be withdrawn.

For clarity of the record, it is noted that nothing in the application as originally filed states or implies that a spherical shape is critical to the invention. It is correct that the specification states that prior art sorbents suffer from “one or more” deficiencies including “... (iii) the sorbent is not available in a physical form of a size, shape, and density, suitable for fluidization,” and that the sorbents of the invention “can readily be produced with the necessary reactivity, stability, and mechanical strength properties, and in a suitable physical form and size, allowing their use ... in fluidized-bed ... reactors”. Nevertheless, such disclosure is directed at the skilled artisan who understands that it is the combination of all the physical properties of size, shape, and density, (as specifically set forth above) that determines whether or not a particular sorbent is fluidizable. In particular, fluidizable

particles can be prepared with varying latitudes of shape parameter possibilities, depending on the specifics of the size and density parameters of the specific particles.

The Examiner has objected to Claims 20-27 due to minor informalities. This objection has been obviated by the present amendments to claim 20 and should therefore be withdrawn.

The rejection of claims 20-27 under 35 U.S.C. 112, first paragraph, for lack of enablement is respectfully traversed. In particular, the relatively small crystallite size of the phases of the active zinc component is an inherent product property that is not relevant to the enablement analysis upon which the rejection is based.

Claims 20-27 are process claims directed to the process for preparing fluidizable, attrition resistant, active zinc oxide containing sorbents. Accordingly, the issue of enablement must be directed to the claimed process. The basis for the lack of enablement finding in the *In re Mayhew* holding cited in the Official Office Action is thus not applicable to the present case. The *Mayhew* case holding was based on the inconsistency between a specification teaching that the criticality of a cooling zone at a particular location in a processing cycle as a critical element of the claimed process, and claims which did not include that critical element of the process. In contrast, the present specification fully enables the claimed process for preparing active zinc oxide containing sorbents based on the elements set forth in claim 20 including the specific starting materials and the quantities thereof, and the specific process steps recited therein. The crystallite size properties of sorbents resulting from the process are not taught by the present specification to be a critical element of the process of preparing the sorbents.

In sum, it is respectfully submitted that the issue of enablement must be directed to the claimed process, and that the claimed process is fully enabled by Applicants' specification. Accordingly, it is requested that the rejection of claims 20-27 for failure to meet the enablement requirement of 35 USC § 112, first paragraph, be withdrawn.

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Reply to Office Action of September 8, 2004

Applicants submit that the application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



J. Derek Mason
Attorney of Record
Registration No. 35,270

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

J. Derek Mason
Registration No. 35,270

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IN THE DRAWINGS

Please add the attached sheet of drawings which provides Fig. 1. This drawing is fully supported by the description in the specification beginning at page 16, line 8, and the two Campbell et al publications discussed and incorporated by reference therein.

Attachment: FIG. 1

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Ninth New
Collegiate
Dictionary

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1134 spelt • spherical

spelt \ˈspelt\ *n* [ME, fr. OE, fr. LL *spelta*, of Gmc origin; akin to MHG *spelte* split piece of wood, OHG *spoltan* to split — more at **SPLIT**] (bef. 12c): a wheat (*Triticum spelta*) with lax spikes and spikelets containing two light red kernels

spelt \ˈspelt\ chiefly Brit past and past part of **SPELL**

spelter \ˈspel-tər\ *n* [prob. alter. of MD *speutler*] (1661): ZINC esp: zinc cast in slabs for commercial use

spe-lunk-er \ˈspi-ləŋ-kər, ˈspe-\ *n* [L *spelunca* cave, fr. Gk *spēlynx*: akin to Gk *spēlaion* cave] (1944): one who makes a hobby of exploring and studying caves

spe-lunk-ing \-kɪŋ\ *n* (1944): the hobby or practice of exploring caves

spence \ˈspen(t)s\ *n* [ME, fr. MF *despense*, fr. ML *dispensa*, fr. L, fem. of *dispensus*, pp. of *dispendere* to weigh out — more at **DISPENSE**] dial Brit (14c): PANTRY

spen-er \ˈspen(t)-sər\ *n* [George John, 2d earl Spencer †1834 Eng. politician] (1796): a short waist-length jacket

spencer *n* [prob. fr. the name Spencer] (1840): a trysail abaft the foremast or mainmast

Spencerian \ˈspen-sir-ē-ən\ *adj* [Platt R. Spencer †1864 Am. calligrapher] (1878): of or relating to a form of slanting handwriting

Spencerianism \ˈspen-sir-ē-ən-iz-əm\ *n* (1880): the synthetic philosophy of Herbert Spencer that has as its central idea the mechanistic evolution of the cosmos from relative simplicity to relative complexity

spend \ˈspend\ *vb* **spelt** [ME *spenden*, fr. OE & OF: OE *spendan*, fr. L *expendere* to expend; OF *despendre*, fr. L *dispensare* to weigh out — more at **DISPENSE**] *vi* (12c) 1: to use up or pay out: EXPEND 2: a: EXHAUST, WEAR OUT (the hurricane gradually spent itself) b: to consume wastefully: SQUANDER (the waters are not ours to ~ — J. R. Ellis) 3: to cause or permit to elapse: PASS (spent the summer at the beach) 4: GIVE UP, SACRIFICE ~ *vi* 1: to expend or waste wealth or strength 2: to become expended or consumed — **spend-er** *n*

spend-able \ˈspen-də-bəl\ *adj* (1500): available for spending

spending money *n* (1598): POCKET MONEY

spend-thrift \ˈspen(d)-θrɪft\ *n* (1601): one who spends improvidently or wastefully — **spendthrift** *adj*

Spenglerian \ˈs(h)pen-(g)lɪr-ē-ən\ *adj* (1926): of or relating to the theory of world history developed by Oswald Spengler which holds that all major cultures undergo similar cyclical developments from birth to maturity to decay — **Spenglerian** *n*

Spenserian stanza \ˈspen-sir-ē-ən-\ *n* [Edmund Spenser] (1818): a stanza consisting of eight verses of iambic pentameter and an alexandrine with a rhyme scheme *ababbcbcc*

spent \ˈspent\ *adj* [ME, fr. pp. of *spenden* to spend] (15c) 1: a: used up: CONSUMED b: exhausted of active or required components or qualities often for a particular purpose (grain that remains from worst production is a useful livestock feed) 2: drained of energy or effectiveness: EXHAUSTED 3: exhausted of spawn or sperm (a ~ salmon)

sperm \ˈspɜrm\ *n*, *pl* sperm or sperms [ME, fr. MF *esperme*, fr. LL *sperma*, *sperma*, fr. Gk, lit., seed; akin to Gk *speirein* to sow — more at **SPROUT**] (14c) 1: a: the male fecundating fluid: SEMEN b: a male gamete 2: a product (as spermaceti or oil) of the sperm whale

sperm- or sperm- or sperma- or spermi- *comb form* [Gk *sperm-*, *spermo-*, *fr. sperma*]: seed: germ: sperm (*spermatheca*) (*spermary*) (*spermicidal*)

spermace-ti \ˈspər-mə-ˈset-ē, ˈset-\ *n* [ME *sperma cete*, fr. ML *sperma ceti* whale sperm] (15c): a waxy solid obtained from the oil of cetaceans and esp. sperm whales and used in ointments, cosmetics, and candles

spermato-goni-um \ˈspər-mə-ˈgō-nē-əm\ *n*, *pl* -nia \-nē-ə\ [NL, fr. *sperma* + *gon-* + *-ium*] (1897): a flask-shaped or pear-shaped receptacle in which spermatia are produced in some fungi and lichens

sperm-ma-ry \ˈspɜrm-(ə-)rē\ *n*, *pl* -ries [NL *spermarium*, fr. Gk *sperma*] (ca. 1864): an organ in which male gametes are developed

spermato- *comb form* [MF, fr. LL, fr. Gk, fr. *sperma*, *sperma*]: seed: spermatozoon (*spermand*) (*spermatocyte*)

sperma-the-ca \ˈspər-mə-ˈthē-kə\ *n* [NL] (1826): a sac for sperm storage in the female reproductive tract of many lower animals

spermatic \ˈspər-mat-ik\ *adj* (1539) 1: relating to sperm or a spermary 2: resembling, carrying, or full of sperm

spermatic cord *n* (1797): a cord that suspends the testis within the scrotum and contains the vas deferens and vessels and nerves of the testis

sperma-tid \ˈspər-mət-əd\ *n* (1889): one of the cells that are formed by division of the secondary spermatocytes and that differentiate into spermatozoa

sperma-tum \ˈspər-mə-ˈsh(e)-əm\ *n*, *pl* -tia \-sh(ē)-ə\ [NL, fr. Gk *spermatum*, dim. of *sperma*, *sperma*] (1856): a nonmotile cell functioning or held to function as a male gamete in some lower plants — **sperma-tial** \-sh(ē)-əl\ *adj*

sperma-to-cyte \ˈspər-mat-ə-sīt\ *n* (1886): a cell giving rise to sperm cells; esp: a cell of the last generation or next to the last generation preceding the spermatozoon

sperma-to-gen-e-sis \ˈspər-mat-ə-ˈjən-ə-səs\ *n* [NL] (1881): the process of male gamete formation including meiosis and transformation of the four resulting spermatids into spermatozoa — **sperma-to-genic** \-jən-ik\ *adj*

sperma-to-goni-um \ˈgō-nē-əm\ *n*, *pl* -nia \-nē-ə\ [NL, fr. *sperma* + *gon-* + *-ium*] (1861): a primitive male germ cell — **sperma-to-goni-al** \-nē-əl\ *adj*

sperma-to-phore \ˈspər-mat-ə-ˈfō(r)-, ˈfō(r)-\ *n* [ISV] (1847): a capsule, packet, or mass enclosing spermatozoa extruded by the male and conveyed to the female in the insemination of various lower animals

sperma-phyte \ˈspɜr-mə-ˈfīt\ *n* [deriv. of NL *sperma* + Gk *phyton* plant — more at **PHYTE**] (1897): any of a group (Spermatophyta) of higher plants comprising those that produce seeds and including the gymnosperms and angiosperms — **sperma-phytic** \-mat-ə-ˈfīt-ik\ *adj*

sperma-to-zo-an \ˈspər-mat-ə-ˈzō-ən, ˈspər-mət-\ *n* (ca. 1900): SPERMATOZOON — **spermatozoan** *adj*

sperma-to-zo-id \ˈzō-əd\ *n* [ISV, fr. NL *spermatozoon*] (1857): a male gamete of a plant motile by anterior cilia and usu. produced in an antheridium

sper-ma-to-zo-on \ˈzō-ən, ˈzō-ən\ *n*, *pl* -zoa \-zō-ə\ [NL] (1836) 1: a motile male gamete of an animal usu. with rounded or elongate head and a long posterior flagellum 2: SPERMATOZOID — **sperma-to-zoal** \-zō-əl\ *adj*

sperm cell *n* (1851): a male gamete: a male germ cell

sper-mi-cid-al \ˈspər-mə-ˈsɪd-əl\ *adj* (1935): killing sperm (— **jelly**) — **sper-mi-cide** \ˈspər-mə-ˈsɪd\ *n*

sper-mio-gen-e-sis \ˈspər-mē-ə-ˈjən-ə-səs\ *n* [NL, fr. *spermium* spermatozoon + *-o-* + L *genesis*] (1916) 1: SPERMATOGENESIS 2: transformation of a spermatid into a spermatozoon

sperm nucleus *n* (1887): either of two nuclei that derive from the generative nucleus of a pollen grain and function in the fertilization of a seed plant

sperm oil *n* (1839): a pale yellow oil from the sperm whale

sper-mo-phil \ˈspər-mə-ˈfɪl\ *n* [deriv. of Gk *sperma* seed + *phila* loving] (1824): GROUND SQUIRREL

sperm whale \ˈspɜrm-\ *n* [short for *spermaceti* + *whale*] (1839): a large toothed whale (*Physeter catodon*) with a large closed cavity in the head containing a fluid mixture of spermaceti and oil



sperm whale

sper-my \ˈspər-mē\ *n* *comb form* [Gk *sperma* seed, *sperm*]: state of exhibiting or resulting from (such) a fertilization (egamiospermy)

sper-ry-lite \ˈspər-ri-jit\ *n* [Francis L. Sperry, 19th cent. Canad. chemist + *-lite*] (ca. 1909): a mineral PHS, consisting of a platinum amide occurring near Sudbury, Ontario, in grains and minute isometric crystals of a bluish white color

spes-sar-tite \ˈspes-ər-tīt\ *also* *spes-sartine* \-tēn\ *n* [F, fr. *Spess* mountain range, Germany] (ca. 1887): a manganese aluminum garnet usu. containing other elements (as iron and magnesium) in minor amounts

spew \ˈspyu\ *vb* [ME *spewen*, fr. OE *spīwan*: akin to OHG *spīwan* to spit, L *spuere*, Gk *ptyein*] *vi* (bef. 12c) 1: VOMIT 2: to come forth in flood or gush (pornography ~ing from the presses) 3: to ooze out as if under pressure: EXUDE ~ *vi* 1: VOMIT 2: to send or cast forth with vigor or violence or in great quantity — **spew-er** *n*

spew *n* (1609) 1: matter that is vomited: VOMIT 2: material that exudes or is extruded

sphag-nous \ˈflæg-nəs\ *adj* (ca. 1828): of, relating to, or abounding in sphagnum

sphag-num \ˈflæg-nəm\ *n* [NL, fr. L *sphagnus*, a moss, fr. Gk] (1753) 1: any of a large genus (*Sphagnum*, coextensive with the order *Sphagnales*) of atypical mosses that grow only in wet acid areas where they remain become compacted with other plant debris to form peat 2: a mass of sphagnum plants

sphal-er-ite \ˈflal-ə-ˈrīt\ *n* [G *sphalerit*, fr. Gk *sphaleros* deceitful, *it* *sphallein* to cause to fall; fr. its often being mistaken for galena — more at **SPLIT**] (ca. 1868): a widely distributed ore of zinc composed essentially of zinc sulfide ZnS

S phase *n* (1945): the period in the cell cycle during which DNA replication takes place — compare G₁ PHASE, G₂ PHASE, M PHASE

sphene \ˈsfēn\ *n* [F *sphène*, fr. Gk *sphēn* wedge — more at **SPOON**] (ca. 1815): a mineral CaTiSiO₆ that is a silicate of calcium and titanium and often contains other elements

sphen-odon \ˈsfē-nō-dən, ˈsfen-ə-\ *n* [NL, deriv. of Gk *sphēn* wedge + *odon* tooth — more at **TOOTH**] (1878): TUATARA — **sphen-odont** \-dant\ *adj*

sphenoid \ˈsfē-nōid\ or **sphenoid-al** \ˈsfī-nōid-əl\ *adj* [NL *sphenoides*, fr. Gk *sphēnoidēs* wedge-shaped, fr. *sphēn* wedge] (1732) 1: of, relating to, or being a winged compound bone of the base of the cranium 2: *usu* **sphenoidal**: wedge-shaped

sphenoid *n* (1828): a sphenoid bone

sphenop-sid \ˈsfī-nāp-səd\ *n* [deriv. of Gk *sphēn* wedge + NL *opsis*] (1957): any of a subdivision (Sphenopsida) of the tracheophytes characterized by jointed stems, small leaves usu. in whorls at distinct nodes, and sporangia in sporangiophores and made up of the equant and extinct related forms

spher- or sphaer- *also* **sphaer-** or **sphaero-** *comb form* [L *sphaer-*, fr. Gk *sphaîra*, *sphaîra*, *sphaîra* sphere]: sphere (*spherule*) (*spherometer*)

spher-al \ˈsfīr-əl\ *adj* (1571) 1: SPHERICAL 2: of or relating to the spheres of ancient astronomy

sphere \ˈsfīr-ə\ *n* [ME *sphere* globe, celestial sphere, fr. MF *esphere*, fr. L *sphaera*, fr. Gk *sphaîra*, lit., ball] (14c) 1: a (1): the apparent surface of the heavens of which half forms the dome of the visible sky (2): one of the concentric and eccentric revolving spherical transparent shells in which according to ancient astronomy stars, sun, planets, and moon are set b: a globe depicting such a sphere: broadly: GLOBE 2 a: a globular body: BALL b: PLANET, STAR c: (1): a solid that is bounded by a surface consisting of all points at a given distance from a point constituting its center — see **VOLUME** table (2): the bounding surface of a sphere 3: natural, normal, or proper place; esp: social order or rank 4: a: orb: ORBIT b: a field or range of influence or significance — **spher-ic** \ˈsfīr-ik-, ˈsfēr-\ *adj* — **spher-ic-ity** \ˈsfīr-ik-ə-ti\ *n*

sphere *vi* **sphered**; **spher-ing** (1607) 1: to place in a sphere or among the spheres: ENSPHERE 2: to form into a sphere

sphere of influence (1885): a territorial area within which the political influence or the interests of one nation are held to be more or less paramount

spher-ical \ˈsfīr-ikəl, ˈsfēr-\ *adj* (1523) 1: having the form of a sphere or of one of its segments 2: relating to or dealing with a sphere or its properties — **spher-ic-ally** \-k(ə-)lē\ *adv*

spherical aberration *n* (1868): aberration that is caused by the spherical form of a lens or mirror and that gives different foci for central and marginal rays

spherical angle *n* (1678): the angle between two intersecting arcs of great circles of a sphere measured by the plane angle formed by the tangents to the arcs at the point of intersection

spherical coordinate *n* (ca. 1864): one of three coordinates that are used to locate a point in space and that comprise the radius of the sphere on which the point lies in a system of concentric spheres, the angle formed by the point, the center, and a given axis of the sphere, and the angle between the plane of the first angle and a reference plane through the given axis of the sphere

spherical geometry *n* (1728): the geometry of figures on a sphere

spherical polygon *n* (ca. 1824): a figure analogous to a plane polygon that is formed on a sphere by arcs of great circles

spherical triangle *n* (1585): spherical polygon of three sides

spherical trigonometry *n* (1728): trigonometry applied to spherical triangles and polygons

spherics *var* of **SPHERICS**

spheroid *\sfr(ə)r-oid, \sfr(ə)r-oid* *n* (1664): a figure resembling a sphere

spheroidal *\sfr-oid-əl* *adj* — **spheroidally** *\-l-ē-əd-ly* *adv*

spherometer *\sfr-əm-ō-ter* *n* [ISV] (1827): an instrument for measuring the curvature of a surface

spheroplast *\sfr-ə-plast* *n* (ca. 1920): a modified gram-negative bacterium that is characterized by major alteration and partial loss of the cell wall and by increased osmotic sensitivity and that can result from various nutritional or environmental factors or be induced artificially by use of a lysozyme

spherule *\sfr(ə)r-yl* *n* (1665): a little sphere or spherulitic body

spherulite *\sfr-(y)ə-līt, \sfr-əl-īt* *n* (1823): a usu. spherical crystalline body of radiating crystal fibers often found in vitreous volcanic rocks

spherulitic *\sfr-(y)ə-līt-ik, \sfr-əl-īt-ik* *adj*

sphery *\sfr(ə)r-ē* *adj* (1590): 1: of, relating to, or suggestive of the spherical bodies 2: **ROUND, SPHERICAL**

sphincter *\sfr(ɪ)ŋk-tər* *n* [L.L. fr. Gk *sphinkter*, lit., band, fr. *sphingon* to bind tight] (1578): an annular muscle surrounding and able to contract or close a bodily opening — **sphincter-ial** *\-(ə)r-ē-əl* *adj*

sphinx *\sfr(ɪ)ŋk-s* *n* [deriv. of Gk *sphing*, *sphinx* sphinx] (ca. 1909)

HAWKMOOT

sphinx-goose *\sfr(ɪ)ŋk-ɡoʊz* *n* [Gk *sphinx* (gen. of *sphinx*) + *E -ine*; fr. riddles it posed to its first investigators] (1884): a long-chain unsaturated amino alcohol $C_{17}H_{31}O_2N$ found esp. in nervous tissue and cell membranes

sphinx *\sfr(ɪ)ŋk* *n*, *pl* *sphinx-es* or *sphinx-es* *\sfr(ɪ)ŋk-s* [L. fr. Gk; akin to Gk *sphinkter*, sphincter] (15c): 1: a cap: a winged female monster in Greek mythology having a woman's head and a lion's body and noted for killing anyone unable to answer its riddle 2: an enigmatic or mysterious person 3: an ancient Egyptian image in the form of a recumbent lion having a man's head, a ram's head, or a hawk's head 3

HAWKMOOT

sphygmograph *\sfr(ɪ)ŋk-mə-graf* *n* [Gk *sphygmia* pulse + *ISV -graph*] (ca. 1859): an instrument that records graphically the movements or character of the pulse — **sphygmograph-ic** *\sfr(ɪ)ŋk-mə-graf-ik* *adj* — **sphygmograph-y** *\sfr(ɪ)ŋk-mə-graf-ē* *n*

sphygmomanometer *\sfr(ɪ)ŋk-mə-nō-m-ō-m-ē-ter* *n* [Gk *sphygmia* pulse akin to Gk *asphyxia* stopping of the pulse] + *ISV manometer* — more in **ASPHYXIA**] (ca. 1891): an instrument for measuring blood pressure and esp. arterial blood pressure — **sphygmomanometry** *\sfr(ɪ)ŋk-mə-nō-m-ē-try* *n*

spice *\sp(ɪ)k* *n*, *pl* *spices* *\-kē* or *spices* [L. *spice* of grain — more at **SPICE**] (ca. 1731): 1: bandage that is applied in successive V-shaped crossings and is used to immobilize a limb esp. at a joint

spice *\sp(ɪ)k* *n*, [L. lit., spike of grain]: 2: a star of the first magnitude in the constellation Virgo

spicate *\sp(ɪ)k-ət* *adj* [L. *spicatus*, pp. of *spicare* to arrange in the shape of heads of grain, fr. *spica*] (1668): arranged in the form of a spike (as an inflorescence)

spicate *\sp(ɪ)k-ət* *adj* [It. pp. of *spicare* to detach, pick off] (ca. 1724): performed with springing bow — used as a direction in music

spicate *n*, *pl* *-tos* (ca. 1903): a spicatto technique, performance, or passage

spice *\sp(ɪ)k* *n* [ME, fr. OF *espice*, fr. LL *species* spices, fr. L. *species* — more at **SPY**] (13c): 1: any of various aromatic vegetable products (as pepper or nutmeg) used to season or flavor foods 2: *aromatic*: a small portion, quantity, or admixture: **DASH** 3: something that gives zest or relish (variety) the very ~ of life — William Cowper 3: a pungent or fragrant odor: **PERFUME**

spice *vt* *spiced*; **spicing** *\sp(ɪ)k-ɪŋ* (14c): 1: to season with spices 2: to add zest or relish to (cynicism *spiced* with humor — J. W. Dawson)

spice-bush *\sp(ɪ)k-bʊʃ* *n* (1770): an aromatic shrub (*Lindera benzoin*) of the laurel family that bears dense clusters of small yellow flowers followed by scarlet or yellow berries

spicy *\sp(ɪ)k-ē* *n*, *pl* *-eries* (13c): 1: **SPICES** 2: *aromatic*: a repository of spices 3: a spicy quality

spick or **spic or **spik** *\sp(ɪ)k* *n* [alter. of earlier *spiggory*, of unknown origin] (1916): **SPANISH AMERICAN** — usu. taken to be offensive**

spick-and-span or **spic-and-span** *\sp(ɪ)k-ən-spən, \sp(ɪ)k-ən-spən* *adj* [short fr. *spick-and-span-new*, fr. obs. *E. spick* (spike) + *E. and* + *span-new* (brand-new)] (1665): 1: **FRESH, BRAND-NEW** 2: *spotlessly clean*

spicule *\sp(ɪ)k-yl* *n* [NL *spicula* & L. *spiculum*] (1785): 1: a minute slender pointed usu. hard body; esp.: one of the minute calcareous siliceous bodies that support the tissue of various invertebrates (as sponges) 2: a spike-like short-lived prominence appearing close to the chromosphere of the solar atmosphere — **spicule-ous** *\sp(ɪ)k-yl-əs* *adj*

spiculation *\sp(ɪ)k-yl-ə-shən* *n*

spicy *\sp(ɪ)k-ē* *adj* *spice-er*; *-est* (1562): 1: having the quality, flavor, or fragrance of spice 2: producing or abounding in spices 3: **LIVELY, BRITISH**: 4: **PIQUANT, RACY**; esp.: somewhat scandalous or salacious (goSSIP) — **spicily** *\-ē-lē* *adv* — **spice-ness** *\-ē-nəs* *n*

spider *\sp(ɪ)dr* *n* [ME, alter. of *spithre*; akin to OE *spinnan* to spin] (14c): 1: any of an order (Araneida) of arachnids having a body with two main divisions, four pairs of walking legs, and two or more pairs of

abdominal spinnerets for spinning threads of silk used in making cocoons for their eggs, nests for themselves, or webs to catch prey 2: a cast-iron frying pan orig. made with short feet to stand among coals on the hearth 3: any of various devices consisting of a frame or skeleton with radiating arms or members

spider crab *n* (ca. 1710): any of numerous crabs (esp. family Majidae) with extremely long legs and nearly triangular bodies which they often cover with kelp

spider mite *n* (1870): **RED SPIDER**

spider monkey *n* (1764): any of a genus (*Ateles*) of New World monkeys with long slender limbs, the thumb absent or rudimentary, and a very long prehensile tail

spider plant *n* (1944): a widely grown houseplant (*Chlorophytum comosum* var. *variegatum*) of the lily family having long green leaves usu. striped with white or ivory and producing white flowers and tufts of plantlets on long hanging stems

spider-web *\sp(ɪ)d-ər-web* *n* (1535): the silken web spun by most spiders and used as a resting place and as a trap for small prey

spider-wort *\-wɔrt, -wɔrt* *n* (1629): any of a genus (*Tradescantia* of the family Commelinaceae, the spiderwort family) of monocotyledonous plants with ephemeral usu. blue or violet flowers

spidery *\sp(ɪ)d-ər-ē* *adj* (1837): 1: resembling a spider in form or manner 2: resembling a spiderweb; esp.: composed of fine threads or lines in a weblike arrangement (~lace) 3: infested with spiders

spile-gel-ees *\sp(ɪ)k-əl-ēz* *n* also *spile-gel* *\sp(ɪ)k-əl* *n* [G. *spilegelen*, fr. *spile* mirror (fr. OHG *spigal*, fr. L. *speculum*) + *elisen* iron, fr. OHG *larn* — more at **SPECULUM, IRON**] (1868): a composition of iron that contains 15 to 30 percent manganese and 4.5 to 6.5 percent carbon

spile *\sp(ɪ)k* *vb* [G. *spilen* to play, fr. OHG *spilan*; akin to OHG *spil* play, OE *spilian* to revel] *w* (1870): 1: to play music 2: to talk volubly or extravagantly ~ *v*: to utter, express, or describe volubly or extravagantly — **spile-er** *\sp(ɪ)k-ər* *n*

spile *n* (1896): a voluble line of often extravagant talk: **PITCH**

spile *\sp(ɪ)k* *n* (13c): **SPY**

spile *\sp(ɪ)k* *adj* chiefly Scot *var* of **SPEER**

spiff *\sp(ɪ)k* *adj* *spiff-er*; *-est* [E. dial. *spiff* dandified] (1853): fine looking; **SMART** (as ~ sports jacket)

spigot *\sp(ɪ)g-ət, \sp(ɪ)k-ət* *n* [ME] (14c): 1: **SPILE** 2: 2: the plug of a faucet or cock 3: **FAUCET** 4: something resembling a spigot esp. in regulating availability or flow (as of money)

spike *\sp(ɪ)k* *n* [ME, prob. fr. MD] (14c): 1: a very large nail 2: a: one of a row of pointed irons placed (as on the top of a wall) to prevent passage 2: (1) one of several metal projections set in the sole and heel of a shoe to improve traction (2) *pl*: a pair of shoes having spikes attached to the soles or soles and heels 3: something resembling a spike: as a: a young mackerel not over six inches (15.2 centimeters) long b: an unbranched antler of a young deer 4: *pl*: shoes with spike heels 5: the act or an instance of spiking (as in volleyball) 6: a: a pointed element in a graph or tracing b: an unusually high and sharply defined maximum (as of amplitude in a wave train) 7: *slang*: **HYPODERMIC NEEDLE** 8: a momentary sharp increase and fall in the record of an electric potential; also: **ACTION POTENTIAL** — **spike-like** *\sp(ɪ)k-lik* *adj*

spike *vt* *spiked*; **spiking** *\sp(ɪ)k-ɪŋ* (1624): 1: to fasten or furnish with spikes 2: a: to disable (a muzzle-loading cannon) temporarily by driving a spike into the vent b: to suppress or block completely (*spiked the rumor*) 3: to pierce or impale with or on a spike 4: a: to add an alcoholic beverage to (a drink) b: to add something highly reactive (as a radioactive tracer) to 5: to drive (as a volleyball) sharply downward with a hard blow; also: to throw down sharply (*spiked the ball in the end zone*) — **spiker** *n*

spike *n* [ME *spik* head of grain, fr. L. *spica* — more at **SPINE**] (14c): 1: an ear of grain 2: an elongated inflorescence similar to a raceme but having the flowers sessile on the main axis — see **INFLORESCENCE** illustration

spiked *\sp(ɪ)kt, \sp(ɪ)k-əd* *adj* (1681): 1: having an inflorescence that is a spike 2: having a sharp projecting point

spike heel *n* (1926): a very high tapering heel used on women's shoes

spike lavender *\sp(ɪ)k-ə-lav-ər* *n* [alter. of E. dial. *spick lavender*] (ca. 1891): a European mint (*Lawsonia latifolia*) related to true lavender

spikelet *\sp(ɪ)k-let* *n* (1851): a small or secondary spike; *specif*: one of the small few-flowered bracted spikes that make up the compound inflorescence of a grass or sedge

spike-nard *\sp(ɪ)k-nərd* *n* [ME, fr. MF or ML: *MF picanarde*, fr. ML *spica nardi*, lit., spike of nard] (14c): 1: a: a fragrant ointment of the ancients b: an East Indian aromatic plant (*Nardostachys jatamansi*) of the valerian family from which spike-nard is believed to have been derived 2: an American herb (*Aralia racemosa*) of the ginseng family with aromatic root and panicked umbels

spike-tooth harrow *\sp(ɪ)k-tūth-* *n* (1926): a harrow with straight steel teeth set in horizontal bars

spiky *\sp(ɪ)k-ē* *adj* *spik-er*; *-est* (1720): 1: of, relating to, or characterized by spikes 2: sharply irritating or acerbic (as in temper or manner) 3: [fr. the alleged harshness of such views] *Brit*: strongly favoring Anglo-Catholic teaching or practice

spile *\sp(ɪ)k* *n* [prob. fr. D *spil* stake; akin to L. *spina* thorn — more at **SPINA**] (1513): 1: **SPILE** 2: a small plug used to stop the vent of a cask: **BUNG** 3: a spout inserted in a tree to draw off sap

spile *vt* *spilled*; **spilling** *\sp(ɪ)k-ɪŋ* (1691): 1: to plug with a spile 2: to supply with a spile

spilling *\sp(ɪ)l-ɪŋ* *n* (1841): a set of piles: **PILING**

spill *\sp(ɪ)l* *vb* *spilled* *\sp(ɪ)ld, \sp(ɪ)lt* also *spilt* *\sp(ɪ)lt*; **spilling** [ME *spillen*, fr. OE *spilian*; akin to OHG *spilian* to spit, L. *spolia* spoils, Gk *spallein* to cause to fall] *w* (bef. 12c): 1: *archaic*: **KILL, DESTROY** 2: to cause (blood) to flow 2: to cause or allow esp. accidentally or unintentionally to fall, flow, or run out so as to be lost or wasted 3: a: to relieve (a sail) from the pressure of the wind so as to reef or furl it

\ə/ abet \k/ kitten, P table \ər/ farther \ə/ ash \ə/ acc \ə/ cot, cart
 \a/ out \ch/ chin \e/ bet \e/ easy \ə/ go \h/ hit \i/ ice \j/ job
 \j/ sing \d/ go \d/ law \d/ bay \th/ thin \th/ the \l/ foot \l/ foot
 \j/ yet \zh/ vision \ə/ b, c, œ, u, œ, \j/ see Guide to Pronunciation